SAFETY DATA SHEET

1. Identification

Product Name: Sodium molybdate(VI) dihydrate
Cat No.: AC206370000; AC206370025; AC206370050; AC206371000; AC206375000
Synonyms: Disodium Molybdate Dihydrate, Molybdic Acid Sodium Dihydrate
Recommended Use: Laboratory chemicals
Uses advised against: Not for food, drug, pesticide or biocidal product use

Details of the supplier of the safety data sheet

Company
Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

Emergency Telephone Number
For information US call: 001-800-ACROS-01 / Europe call: +32 14 57 52 11
Emergency Number US: 001-201-796-7100 / Europe: +32 14 57 52 99
CHMTREC Tel. No.US:001-800-424-9300 / Europe:001-703-527-3887

2. Hazard(s) identification

Classification

Based on available data, the classification criteria are not met

Label Elements
None required

Hazards not otherwise classified (HNOC)
None identified

3. Composition / information on ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium molybdate dihydrate</td>
<td>10102-40-6</td>
<td>&gt;95</td>
</tr>
<tr>
<td>Sodium molybdate</td>
<td>7631-95-0</td>
<td>-</td>
</tr>
</tbody>
</table>

4. First-aid measures
### Sodium molybdate(VI) dihydrate

**Revision Date** 25-May-2017

### Eye Contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention if symptoms occur.

### Skin Contact
Wash off immediately with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.

### Inhalation
Move to fresh air. Get medical attention if symptoms occur. If not breathing, give artificial respiration.

### Ingestion
Do not induce vomiting. Get medical attention if symptoms occur.

#### Most important symptoms/effects
No information available.

#### Notes to Physician
Treat symptomatically

### 5. Fire-fighting measures

#### Unsuitable Extinguishing Media
No information available

#### Method
No information available

#### Flash Point
No information available

#### Autoignition Temperature
No information available

#### Explosion Limits
Upper No data available
Lower No data available

#### Sensitivity to Mechanical Impact
No information available

#### Sensitivity to Static Discharge
No information available

### Specific Hazards Arising from the Chemical
Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition.

### Hazardous Combustion Products
Metal oxides

### Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

#### NFPA

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Instability</th>
<th>Physical hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>0</td>
<td>N/A</td>
</tr>
</tbody>
</table>

### 6. Accidental release measures

#### Personal Precautions
Use personal protective equipment. Ensure adequate ventilation. Avoid dust formation. Avoid contact with skin, eyes and clothing.

#### Environmental Precautions
Avoid release to the environment. Should not be released into the environment. Do not allow material to contaminate ground water system. Do not flush into surface water or sanitary sewer system.

#### Methods for Containment and Clean Up
Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.

### 7. Handling and storage

#### Handling
Wear personal protective equipment. Ensure adequate ventilation. Avoid dust formation. Avoid contact with skin, eyes and clothing. Avoid ingestion and inhalation.

#### Storage
Keep in a dry, cool and well-ventilated place. Keep container tightly closed.

### 8. Exposure controls / personal protection
Exposure Guidelines

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
<th>Mexico OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium molybdate dihydrate</td>
<td>TWA: 0.5 mg/m³</td>
<td>(Vacated) TWA: 5 mg/m³</td>
<td>IDLH: 1000 mg/m³</td>
<td>TWA: 5 mg/m³</td>
</tr>
<tr>
<td>Sodium molybdate</td>
<td>TWA: 0.5 mg/m³</td>
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<td>IDLH: 1000 mg/m³</td>
<td>TWA: 5 mg/m³</td>
</tr>
</tbody>
</table>

Legend
ACGIH - American Conference of Governmental Industrial Hygienists
OSHA - Occupational Safety and Health Administration
NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

Engineering Measures
None under normal use conditions.

Personal Protective Equipment

Eye/face Protection
Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection
Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection
No protective equipment is needed under normal use conditions.

Hygiene Measures
Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

- Physical State: Powder Solid
- Appearance: White
- Odor: Odorless
- Odor Threshold: No information available
- pH: 9.0-10
- Melting Point/Range: No data available
- Boiling Point/Range: No information available
- Flash Point: No information available
- Evaporation Rate: Not applicable
- Flammability (solid, gas): No information available
- Flammability or explosive limits
  - Upper: No data available
  - Lower: No data available
- Vapor Pressure: No information available
- Vapor Density: Not applicable
- Specific Gravity: 3.280
- Solubility: No information available
- Partition coefficient; n-octanol/water: No data available
- Autoignition Temperature: No information available
- Decomposition Temperature: No information available
- Viscosity: Not applicable
- Molecular Formula: Mo Na2 O₄ . 2 H₂ O
- Molecular Weight: 241.95

10. Stability and reactivity

- Reactive Hazard: None known, based on information available
- Stability: Stable under normal conditions.
Conditions to Avoid

Incompatible Materials
Strong oxidizing agents

Hazardous Decomposition Products
Metal oxides

Hazardous Polymerization
Hazardous polymerization does not occur.

Hazardous Reactions
None under normal processing.

11. Toxicological information

Acute Toxicity

Product Information
Oral LD50
Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.
Dermal LD50
Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.
Mist LC50
Based on ATE data, the classification criteria are not met. ATE > 5 mg/l.

Component Information

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium molybdate</td>
<td>LD50 = 4000 mg/kg (Rat)</td>
<td>Not listed</td>
<td>LC50 &gt; 2080 mg/m³ (Rat) 4 h</td>
</tr>
</tbody>
</table>

Toxicologically Synergistic Products
No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation
No information available

Sensitization
No information available

Carcinogenicity
The table below indicates whether each agency has listed any ingredient as a carcinogen.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>IARC</th>
<th>NTP</th>
<th>ACGIH</th>
<th>OSHA</th>
<th>Mexico</th>
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</thead>
<tbody>
<tr>
<td>Sodium molybdate</td>
<td>10102-40-6</td>
<td>Not listed</td>
<td>Not listed</td>
<td>A3</td>
<td>Not listed</td>
<td>Not listed</td>
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<tr>
<td>Sodium molybdate</td>
<td>7631-95-0</td>
<td>Not listed</td>
<td>Not listed</td>
<td>A3</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

Mutagenic Effects
No information available

Reproductive Effects
No information available.

Developmental Effects
No information available.

Teratogenicity
No information available.

STOT - single exposure
None known

STOT - repeated exposure
None known

Aspiration hazard
No information available

Symptoms / effects, both acute and delayed
No information available

Endocrine Disruptor Information
No information available

Other Adverse Effects
The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity
Do not empty into drains. Do not allow material to contaminate ground water system. May cause long-term adverse effects in the environment.
Persistence and Degradability
May persist based on information available.

Bioaccumulation/Accumulation
No information available.

Mobility
Will likely be mobile in the environment due to its water solubility.

13. Disposal considerations

Waste Disposal Methods
Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT
Not regulated

TDG
Not regulated

IATA
Not regulated

IMDG/IMO
Not regulated

15. Regulatory information

International Inventories

<table>
<thead>
<tr>
<th>Component</th>
<th>TSCA</th>
<th>DSL</th>
<th>NDSL</th>
<th>EINECS</th>
<th>ELINCS</th>
<th>NLP</th>
<th>PICCS</th>
<th>ENCS</th>
<th>AICS</th>
<th>IECS</th>
<th>KECL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium molybdate dihydrate</td>
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<td>Sodium molybdate</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Legend:
X - Listed
E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.
F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.
N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.
P - Indicates a commenced PMN substance
R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.
S - Indicates a substance that is identified in a proposed or final Significant New Use Rule
T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.
XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B).
Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.
Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b)
Not applicable

SARA 313
Not applicable

SARA 311/312 Hazard Categories
- Acute Health Hazard: No
- Chronic Health Hazard: No
- Fire Hazard: No
- Sudden Release of Pressure Hazard: No
- Reactive Hazard: No

CWA (Clean Water Act)
Not applicable

Clean Air Act
Not applicable

OSHA Occupational Safety and Health Administration
Not applicable
16. Other information

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Regulatory Affairs
Thermo Fisher Scientific
Email: EMSDS.RA@thermofisher.com

Creation Date 09-Feb-2011
Revision Date 25-May-2017
Print Date 25-May-2017
Revision Summary
This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of SDS